

Docket No.: A-2820

MAIL STOP: APPEAL BRIEF-PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

Applic. No. : 09/848,583 Confirmation No.: 8707
Inventor : Wolfgang Matthes, et al.
Filed : May 3, 2001
Title : Cutting Device And Method For Trimming
TC/A.U. : 3724
Examiner : Jason D. Prone
Customer No. : 24131

Hon. Commissioner for Patents
Alexandria, VA 22313-1450

BRIEF ON APPEAL

Sir:

This is an appeal from the final rejection in the Office action dated August 1, 2008, finally rejecting claims 1 – 4, 6 – 10 and 14.

Appellants submit this *Brief on Appeal* including payment in the amount of \$540.00 to cover the fee for filing the *Brief on Appeal*.

Real Party in Interest:

This application is assigned to Heidelberger Druckmaschinen AG of Germany. The assignment will be submitted for recordation upon the termination of this appeal.

Related Appeals and Interferences:

No related appeals or interference proceedings are currently pending which would directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

Status of Claims:

Claims 1 - 4, 6 - 10 and 14 are rejected and are under appeal. Claims 5 and 12 – 13 have been canceled. Claim 11 has been withdrawn.

Status of Amendments:

No claims were amended after a final Office action.

Summary of the Claimed Subject Matter:

The subject matter of each independent claim is described in the specification of the instant application. Examples explaining the subject matter defined in each of the independent claims, referring to the specification by page and line numbers, and to the drawings, are given below.

Independent claim 1 reads as follows:

Independent device claim 1 recites a cutting device (*Figs. 1-2, page 10, line 7*) for trimming margins of products (*Figs. 3-4, ref. # 16, page 11, line 25*), comprising:

a first cutting station (*Figs. 1, ref. # 100, page 10, lines 5-16 (as amended on August 9, 2007)*) having a first cutting knife (*Figs. 1, ref. # 3, page 10, line 23*);

a second cutting station (*Figs. 1, ref. # 101, page 10, lines 5-16 (as amended on August 9, 2007)*) following said first cutting station (*Figs. 1, ref. # 100, page 10, lines 5-16 (as amended on August 9, 2007)*) in a transport direction (*Figs. 1-2, ref. arrows, page 10, line 9-10*) and receiving the products (*Figs. 3-4, ref. # 16, page 11, line 25*) from said first cutting station (*Figs. 1, ref. # 100, page 10, lines 5-16 (as amended on August 9, 2007)*), said second cutting station (*Figs. 1, ref. # 101, page 10, lines 5-16 (as amended on August 9, 2007)*) having further cutting knives (*Figs. 1-2, ref. # 3, page 10, line 23*);

a transport device (*Figs. 3-4, ref. # 9, page 10, line 12*) having a course of motion and front stops (*Figs. 3-4, ref. # 15, page 11, line 9*) for aligning the products (*Figs. 3-4, ref. # 16, page 11, line 25*);

a first drive (*Figs. 1-4, ref. # 4, page 10, lines 10-11*) for driving said transport device (*Figs. 3-4, ref. # 9, page 10, line 12*);

a stroke device for moving said first cutting knife (*Figs. 1, ref. # 3, page 10, line 23*) and said further cutting knives (*Figs. 1-2, ref. # 3, page 10, line 23*) in a knife motion for performing the trimming of the margins; and

a second drive (*Figs. 1-2, ref. # 1, page 10, line 8*) for driving said stroke device (*Figs. 1-2, ref. # 2, page 10, lines 8-9*);

said first drive (*Figs. 1-4, ref. # 4, page 10, lines 10-11*) and said second drive (*Figs. 1-2, ref. # 1, page 10, line 8*) being embodied as separate, mutually independent drives, and both of said drives (*Figs. 1-4, ref. # 4, page 10, lines 10-11 and ref. # 1, page 10, line 8*) being connected to one another via a control system (*Figs. 1-4, ref. # 10, 11, and 12, page 10, lines 12-16*) configured for setting the course of motion of said transport device (*Figs. 3-4, ref. # 9, page 10, line 12*) to the knife motion as a function of product format (*page 13, lines 1-9*), and said control system (*Figs. 1-4, ref. # 10, 11, and 12, page 10, lines 12-16*) configured for controlling said first drive (*Figs. 1-4, ref. # 4, page 10, lines 10-11*) to set an impact speed of the products (*Figs. 3-4, ref. # 16, page 11, line 25*) at said front stops (*Figs. 3-4, ref. # 15, page 11, line 9*) as a function of product format.

Grounds of Rejection to be Reviewed on Appeal

1. Whether or not claims 1 – 4, 6, 7, 10 and 14 are obvious over Ito (4,922,773) in view of Besemann (4,523,502), Boss (6,536,319), and Hartlage (4,505,173) under 35 U.S.C. § 103(a).
2. Whether or not claims 8 and 9 are obvious over Ito in view of Besemann, Boss and Hartlage and further in view of Cannon et al. (4,553,080) (hereinafter “Cannon”) under 35 U.S.C. § 103(a).

Argument:

Whether claims 1 – 4, 6, 7, 10 and 14 are obvious over Ito in view of Besemann, Boss, and Hartlage under 35 U.S.C. §103.

Claims 1 – 4, 6, 7, 10 and 14 are not obvious over Ito in view of Besemann, Boss, and Hartlage under 35 U.S.C. §103:

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, *inter alia*:

the first drive and the second drive being embodied as separate, mutually independent drives, and both of the drives being connected to one another via a control system configured for setting the course of motion of the transport device to the knife motion as a function of product format, and the control system configured for controlling the first drive to set an impact speed of the products at the front stops as a function of product format.

On page 4 of the Office action the Examiner correctly stated that Ito does not disclose “both drives being connected to the other via a control system for setting the course of motion of the transport device to the knife motion as a function of product format.”

The Besemann reference discloses an apparatus for accumulating stacks of paper sheets, which has a cross cutter. Besemann discloses the cutting of a **web** (77) that is drawn off of a reel and does not pertain to the cutting of books.

Furthermore, because Besemann discloses cutting a **web** (77), Besemann discloses the use of orbiting knives (76a), which orbiting knives rotate in order to cut the web into sheets. Besemann does not disclose different product formats, only a web (77). Besemann does not disclose multiple cutting stations for a product.

On pages 4-5 of the Office action, the Examiner alleges that Besemann discloses “it is old and well know to include a transfer device and a cutter drive to incorporate both drives being connected to the other via a control system for setting the course of motion of the transport device to the knife motion as a function of product format (column 2, lines 30-37).”

The Examiner’s allegation is in error. Firstly, it is noted that the disclosure in lines 30-37 of Besemann pertain the disclosure of Neubueser (U.S. Patent No. 4,474,093). Moreover, Neubueser discloses a transfer of sheets which have been already cut and accumulated into stacks. The transfer of the **stacks** is from a gathering station to a removing conveyor. The transfer of the sheets is based strictly upon a **quantity or number** of sheets in a stack that has been formed by cutting a given number of overlapping webs (columns 1, line 20-60). The transfer of sheet has absolutely nothing to do with a **product format**. Therefore, the computer controls the relationship of the cutter to the transport device based on a **quantity of sheets** in a stack and not on product format.

Furthermore, Besemann explicitly discloses that it is an object of the invention “to provide an apparatus wherein a **single prime mover** suffices to drive the **cross cutter** (i.e., the means for forming successive groups of overlapping sheets) and the **transfer device** which delivers successive layers (each of which contains several groups of sheets) into the range of the conveyor which transfers the layers to the stacking station” (column 2, lines 41-48). Therefore, because Besemann disclose a **single** prime mover (drive) for the cross cutter and the transfer device, Besemann explicitly teaches away from a control device, as required in claim 1 of the instant application. Accordingly, as seen from the above-given remarks, the Examiner’s allegation with respect to lines 30-37 in column 2 of Besemann, are in error.

As seen from the above-given remarks, Besemann does not disclose the first drive and the second drive being embodied as separate, mutually independent drives, and both of the drives being connected to one another via a control system configured for setting the course of motion of the transport device to the knife motion as a function of product format, and the control system configured for controlling the first drive to set an impact speed of the products at the front stops as a function of product format. Therefore, Besemann does not make up for the above-noted Examiner acknowledged deficiencies of Ito.

The Boss reference discloses a cutting machine for trimming printed products such as books. Boss discloses rear stops (40 and 41) for orientation of the products (21) in the cutting position. Boss does not disclose a control system configured for

controlling a drive to set an impact speed of products at the front stops as a function of product format. Therefore, Boss does not make up for the above-noted deficiencies of Ito and Besemann.

The Hartlage reference does not disclose a control system configured for setting the course of motion of the transport device to the knife motion as a function of product format. Therefore, Hartlage does not make up for the above-noted deficiencies of Ito, Besemann, and Boss.

It is a requirement for a *prima facie* case of obviousness, that the prior art references must teach or suggest **all** the claim limitations.

As seen from the above-given remarks, the references do not show or suggest the first drive and the second drive being embodied as separate, mutually independent drives, and both of the drives being connected to one another via a control system configured for setting the course of motion of the transport device to the knife motion as a function of product format, and the control system configured for controlling the first drive to set an impact speed of the products at the front stops as a function of product format.

The references applied by the Examiner **do not** teach or suggest all the claim limitations. Therefore, it there is no *prima facie* case of obviousness.

Since claim 1 is allowable, dependent claims 2– 4, 6, 7, 10 and 14 are allowable as well.

Whether claims 8 and 9 are obvious over Ito in view of Besemann, Boss, and Hartlage and further in view of Cannon under 35 U.S.C. §103.

Claims 8 and 9 are not obvious over Ito in view of Besemann, Boss, and Hartlage and further in view of Cannon under 35 U.S.C. §103:

Cannon does not make up for the deficiencies of Ito, Besemann, Boss and Hartlage. Since claim 1 is allowable, dependent claims 8 and 9 are allowable as well.

Based on the above-given arguments, the honorable Board is therefore respectfully urged to reverse the final rejection of the Primary Examiner.

Any fees due should be charged to Deposit Account No. 12-1099 of Lerner Greenberg Stemer LLP.

Respectfully submitted,

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Claims Appendix:

1. A cutting device for trimming margins of products, comprising:

a first cutting station having a first cutting knife;

a second cutting station following said first cutting station in a transport direction and receiving the products from said first cutting station, said second cutting station having further cutting knives;

a transport device having a course of motion and front stops for aligning the products;

a first drive for driving said transport device;

a stroke device for moving said first cutting knife and said further cutting knives in a knife motion for performing the trimming of the margins; and

a second drive for driving said stroke device;

said first drive and said second drive being embodied as separate, mutually independent drives, and both of said drives being connected to one another via a control system configured for setting the course of motion of said transport device to the knife motion as a function of product format, and said control system configured for controlling said first drive to set an impact speed of the products at said front stops as a function of product format.

2. The cutting device according to claim 1, wherein the cutting device serves for trimming margins of joined-together sheets of paper.
3. The cutting device according to claim 2, wherein the cutting device serves for trimming margins of stitched-together sheets of paper.
4. The cutting device according to claim 1, wherein said control system includes a first and a second control unit, said first drive being linked to said first control unit, and said second drive being linked to said second control unit, and includes a connection linking said first control unit to said second control unit.
6. The cutting device according to claim 4, wherein said first drive is connected by said first control unit and said second drive by said second control unit to a machine control unit.
7. The cutting device according to claim 6, wherein said machine control unit has a human-machine interface.
8. The cutting device according to claim 4, including respective position transducers connected to said first and said second control units and to said first and said second drives, respectively, so that a position regulation of a respective one of said first and said second drives is performable with at least one of said first and said second control units.

9. The cutting device according to claim 8, wherein said first and said second drives are motors.

10. The cutting device according to claim 4, wherein said drives are motors, and wherein at least one of said control units for a respective one of said motors has a programmable logic controller.

11. A method for trimming margins of products using the cutting device according to claim 1, which comprises the following steps:

transporting the products to a first cutting station by a transport device having a first drive and a first control unit;

making a first cut with a knife secured to a stroke station that is movable by a second drive connected to a second control unit;

transporting the products to a second cutting station by a transport device having a first drive and a first control unit; and

making a second cut with a knife secured to a stroke station that is movable by a second drive connected to a second control unit;

wherein the first drive and the second drive being embodied as separate, mutually independent drives, and both of the drives being connected to one another via a

control system for setting the course of motion of the transport device to the knife motion as a function of product format.

14. The cutting device according to claim 1, wherein said first cutting knife is perpendicular to the transport direction and said further cutting knives are parallel to the transport direction.

Evidence Appendix:

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or any other evidence has been entered by the Examiner and relied upon by appellant in the appeal.

Related Proceedings Appendix:

No prior or pending appeals, interferences or judicial proceedings are in existence which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in this appeal. Accordingly, no copies of decisions rendered by a court or the Board are available.